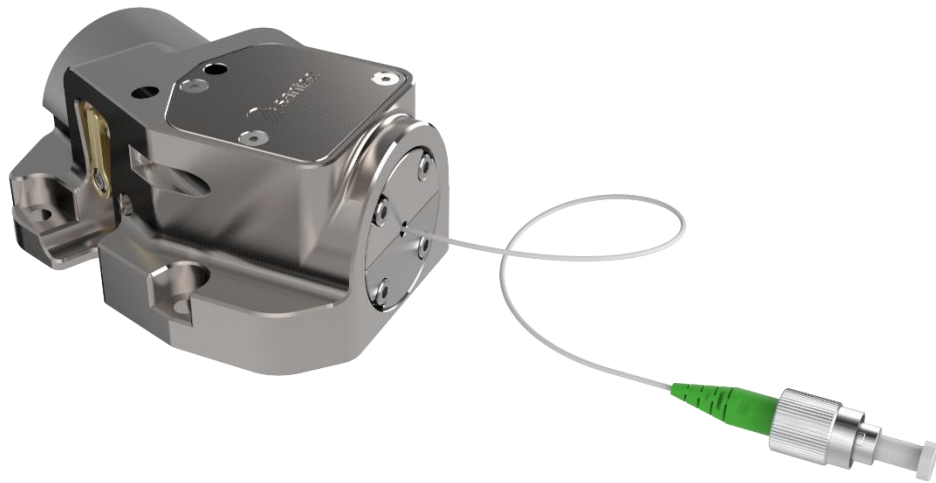




CES Cateye SAF Laser



The Santec CES cateye laser combines the advantages of cateye filter technology with unique butterfly-packaged single angled facet laser diodes. The CES achieves extremely low linewidth (5 kHz) and very broad tuning range, with integral Faraday isolator and fibre-coupled output.

Currently available wavelengths and peak power:

980 – 1080 nm, 200 mW*
1080 – 1200 nm, 100 mW*
1170 – 1270 nm, 40 mW
1250 – 1390 nm, 70 mW
1420 – 1520 nm, 40 mW
1510 – 1610 nm, 40 mW
1860 – 1970 nm, 7 mW*

Notes:

- 1. Full wavelength range requires swapping filters.*
- 2. Devices marked with * do not include internal Faraday isolator.*

Features

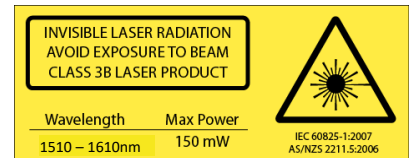
- Ultra-narrow linewidth
- Broad tuning range
- Access to unique wavelengths
- Filter-based tuning with cateye reflection
- Inherently self-aligning
- Acoustically inert

Applications

- Ring resonators
- Telecom test and measurement
- Seed for fibre amplifiers

Cateye SAF Laser

Specifications CES



Wavelength and peak power

980 – 1080 nm, 200 mW*	1420 – 1520 nm, 80 mW
1080 – 1200 nm, 100 mW*	1510 – 1610 nm, 40 mW
1170 – 1270 nm, 40 mW	1860 – 1970 nm, 7 mW*
1250 – 1390 nm, 70 mW	

Linewidth	Independently measured at < 5 kHz with Santec DLC
Modulation	20 MHz bandwidth, AC or DC coupled, 20 ns latency RF bias tee option: >2.5 GHz bandwidth
Coarse tuning range	Up to 140 nm for single diode (multiple filters)

Optical

Output	Single-mode PM fibre, FC/APC connector
Polarisation	PM fibre; PER > 20 dB

Thermal

TEC	±14.5 V 3.3 A Q = 23 W standard
Sensor	NTC 10 kΩ standard; AD590, 592 optional
Stability at base	±1 mK (controller dependent)
Cooling	Water cooling connections optional (usually not required)

Sweep/scan

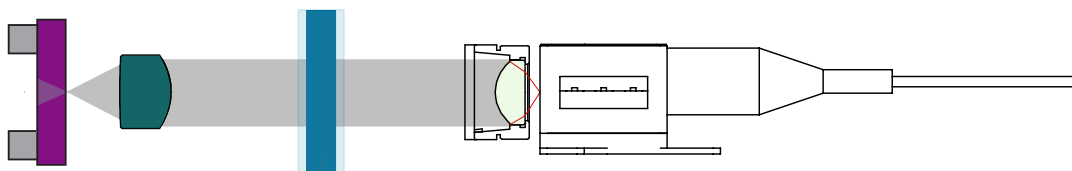
Scan range	Typically, 20 GHz; with Santec controller, rate 4 Hz to 70 Hz
Mode-hop free scan	Typically, >20 GHz, diode dependent, with current feed-forward
Piezo	0 – 150 V, 2 to 5 μm

Electronics

Protection	Relay, cover interlock connection, reverse diode
Indicator	Laser ON/OFF (LED)
Modulation input	SMA DC to 20 MHz or AC 10 kHz to 20 MHz, ground isolated Option: RF bias tee, 16 MHz – 2.5 GHz (lower cutoff optional)
Connector	Santec dDLC Digital Diode Laser Controller (single cable connect)

Dimensions

Dimensions	108 x 70 x 83 mm (LxWxH), 0.5 kg
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